



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-1213; Project Identifier MCAI-2022-01615-T]

RIN 2120-AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive

(AD) 2022-18-12, which applies to all Airbus SAS Model A330-841 and -941 airplanes.

AD 2022-18-12 requires installing serviceable engine electronic control (EEC) software

or EEC units having the serviceable software, limiting certain parts installation

configurations, and prior or concurrent modification of EEC software. Since the FAA

issued AD 2022-18-12, there was a determination that engine crystal icing protection

could be (temporarily) lost if an erroneous total pressure value is provided by the airplane

system, which is addressed through EEC software. This proposed AD would continue to

require certain actions in AD 2022-18-12 and would require adding new limitations for

intermixing of certain EEC software standards and a new operational limitation for

engines with certain EEC software installed, as specified in a European Union Aviation

Safety Agency (EASA) AD, which is proposed for incorporation by reference (IBR).

This proposed AD would also prohibit the installation of certain engines under certain

conditions. The FAA is proposing this AD to address the unsafe condition on these

products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1213; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For the EASA AD identified in this NPRM, you may contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; website easa.europa.eu. You may find this material on the EASA website at ad.easa.europa.eu. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1213.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

FOR FURTHER INFORMATION CONTACT: Tim Dowling, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone 206-231-3667; email timothy.p.dowling@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2023-1213; Project Identifier MCAI-2022-01615-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to [regulations.gov](https://www.regulations.gov), including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public

docket of this NPRM. Submissions containing CBI should be sent to Tim Dowling, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone 206-231-3667; email timothy.p.dowling@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2022-18-12, Amendment 39-22163 (87 FR 56561, September 15, 2022) (AD 2022-18-22), for all Airbus SAS Model A330-841 and -941 airplanes. AD 2022-18-12 was prompted by an MCAI originated by EASA, which is the Technical Agent for the Member States of the European Union. EASA issued AD 2021-0198, dated August 27, 2021, to correct an unsafe condition.

AD 2022-18-12 requires installing serviceable EEC software or EEC units having the serviceable software, limiting certain parts installation configurations, and prior or concurrent modification of EEC software, as specified in an EASA AD. The FAA issued AD 2022-18-12 to address erroneous electronic centralized airplane monitoring (ECAM) engine oil pressure warnings, which could lead to dual engine in-flight shutdown and result in reduced control of the airplane.

Actions Since AD 2022-18-12 Was Issued

Since the FAA issued AD 2022-18-12, EASA superseded EASA AD 2021-0198, dated August 27, 2021, and issued EASA AD 2022-0253, dated December 19, 2022 (EASA AD 2022-0253) (also referred to as the MCAI), to correct an unsafe condition for all Airbus A330-841 and -941 airplanes. The MCAI states that it has been determined that engine crystal icing protection could be (temporarily) lost if an erroneous total pressure value is provided by the airplane system, which, if not corrected, also could lead to dual engine in-flight shutdown and result in reduced control of the airplane. To address this unsafe condition, Rolls-Royce developed new EEC full-authority digital engine

control software (EEC standard 5.3) for the affected Trent 7000 engines.

While AD 2022-18-12 was issued to address a different unsafe condition (to address erroneous ECAM engine oil pressure warnings), and requires installation of a different EEC software (standard 3.1), the EEC software requires modification to address both unsafe conditions, and should run simultaneously. The issue here is that certain EEC software standards for the different unsafe conditions should not be intermixed on an airplane, so this proposed AD would add new limitations for intermixing of certain EEC software. This proposed AD would also add an operational limitation for airplanes having an engine with certain EEC software installed (including EEC software standard 3.1 installed as specified in AD 2022-18-12). Modifying an airplane by installing serviceable EEC software (standard 5.3, having part number (P/N) RRY46T7K0020014, or later approved software standard and part number) would be acceptable for compliance with the operational limitation, provided no affected EEC software, affected EEC unit, or affected engine is installed on that airplane.

The FAA is proposing this AD to address the unsafe condition identified above. You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1213.

Explanation of Retained Requirements

Although this proposed AD does not explicitly restate the requirements of AD 2022-18-12, this proposed AD would retain certain requirements of AD 2022-18-12. Those requirements are referenced in EASA AD 2022-0253, which, in turn, is referenced in paragraph (g) of this proposed AD.

Related Service Information Under 1 CFR Part 51

EASA AD 2022-0253 specifies limitations for intermixing of certain EEC software and an operational limitation for engines with certain EEC software installed. EASA AD 2022-0253 specifies that installation of serviceable EEC software is

acceptable for compliance with (terminates) the operational limitation, provided that no affected EEC software, affected EEC unit, or affected engine is subsequently installed on the airplane. EASA AD 2022-0253 also prohibits the installation of engines with certain EEC software. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in EASA AD 2022-0253 described previously, except for any differences identified as exceptions in the regulatory text of this proposed AD.

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate EASA AD 2022-0253 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2022-0253 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the

same as the heading of a particular section in EASA AD 2022-0253 does not mean that operators need comply only with that section. For example, where the AD requirement refers to “all required actions and compliance times,” compliance with this AD requirement is not limited to the section titled “Required Action(s) and Compliance Time(s)” in EASA AD 2022-0253. Service information required by EASA AD 2022-0253 for compliance will be available at regulations.gov under Docket No. FAA-2023-1213 after the FAA final rule is published.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 20 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Retained actions from AD 2022-18-12 (parts limitations)	1 work-hours X \$85 per hour = \$85	\$0	\$85	\$1,700
New proposed actions	Up to 25 work-hours X \$85 per hour = \$2,125	\$0*	\$2,125	\$42,500

* The FAA has received no definitive data on which to base the cost estimates for the parts specified in this proposed AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive (AD) 2022-18-12, Amendment 39-22163 (87 FR 56561, September 15, 2022); and

b. Adding the following new AD:

Airbus SAS: Docket No. FAA-2023-1213; Project Identifier MCAI-2022-01615-T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2022-18-12, Amendment 39-22163 (87 FR 56561, September 15, 2022) (AD 2022-18-12).

(c) Applicability

This AD applies to all Airbus SAS Model A330-841 and -941 airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 73, Engine Fuel and Control.

(e) Unsafe Condition

This AD was prompted by a determination that engine crystal icing protection could be (temporarily) lost if an erroneous total pressure value is provided by the airplane system and the engine electronic control (EEC) software used to correct the system requires modification. This modification may conflict with EEC software to address erroneous electronic centralized airplane monitoring (ECAM) engine oil pressure warnings. The FAA is issuing this AD to address erroneous total pressure values being provided by the airplane system and any EEC software that should not be intermixed. The unsafe condition, if not addressed, could result in dual engine in-flight shut-down, and subsequent reduced control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2022-0253, dated December 19, 2022 (EASA AD 2022-0253).

(h) Exceptions to EASA AD 2022-0253

(1) Where EASA AD 2022-0253 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where EASA AD 2022-0253 refers to “10 September 2021,” this AD requires using October 20, 2022 (the effective date of AD 2022-18-12).

(3) Where EASA AD 2022-0253 refers to “10 September 2023,” this AD requires using October 20, 2024 (24 months after October 20, 2022, the effective date of AD 2022-18-12).

(4) This AD does not adopt the “Remarks” section of EASA AD 2022-0253.

(i) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the International Validation Branch, send it to the attention of the person identified in paragraph (j) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC,

notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: Except as required by paragraph (i)(2) of this AD, if any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(j) Additional Information

For more information about this AD, contact Tim Dowling, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone 206-231-3667; email timothy.p.dowling@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2022-0253, dated December 19, 2022.

(ii) [Reserved]

(3) For EASA AD 2022-0253, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; website easa.europa.eu. You may find this EASA AD on the EASA website at ad.easa.europa.eu.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on June 8, 2023.

Michael Linegang, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2023-12866 Filed: 6/15/2023 8:45 am; Publication Date: 6/16/2023]